



Underground Storage Tank Section
Iowa Department of Natural Resources
502 East 9th St
Des Moines, IA 50319-0034

Tel 515-281-4367 Fax 515-281-8895
Web Site – www.state.ia.us/dnr

To: Owners of Cathodic Protected Underground Storage Tanks
From: Jim Humeston, Supervisor, Underground Storage Tank Section
Date: 02/12/2001
Re: Inspection of Cathodic Protection Systems and
Using Iowa's Cathodic Protection Inspection Form

Many underground storage tank (UST) systems are having their three-year cathodic protection system inspection. The department has found a large number of the cathodic protection system test reports contain insufficient information to determine if the system was inspected properly and meeting design criteria. Unfortunately, many inadequate inspections are suspected.

In the inspection reports we have reviewed, it is clear in many cases not enough structure to soil potential tests were conducted. These are tests you may have seen conducted above your tank and lines. At least three structure to soil potential tests along the top of each tank should be conducted. The testing locations must be clearly identified in the report.

All structure to soil potential tests must be taken with the reference electrode in contact with the tank or piping backfill. This can sometimes be done at equipment access openings above the tank. Testing stations may need to be installed through concrete or asphalt paving above tanks and lines to conduct these tests. Potential measurements taken with the reference electrode placed on concrete or asphalt give invalid readings and will not be accepted.

At sites with impressed current systems, rarely is there any indication the rectifier providing voltage to the system was checked for proper operation. These reports give the appearance of a cursory inspection being performed on the cathodic protection system.

It is essential that your cathodic protection system operates properly and receives a comprehensive inspection. A properly operating system protects your tanks system from corrosion and your investment. Enclosed is the department's *UST Cathodic Protection Inspection Form* containing a checklist of minimum requirements expected to be performed during the cathodic protection system inspection. **Cathodic protection inspectors are expected to use and follow this form by April 1, 2001.** The inspection form and the inspector's written report must be kept as part of the site's records and made available upon request of the department.

It is important for UST owners to hire competent cathodic protection testers that have education and experience in the principles and measurements of all common types of cathodic protection systems. The cathodic protection inspector must meet the minimum requirements for a "cathodic protection tester" defined in 567--Chapter 135 (455B) IAC.

If you have any questions concerning the attached Cathodic Protection Inspection Form or have other questions, please contact Paul Nelson at the above address, telephone at 515-281-8779, or e-mail Paul.Nelson@dnr.state.ia.us.